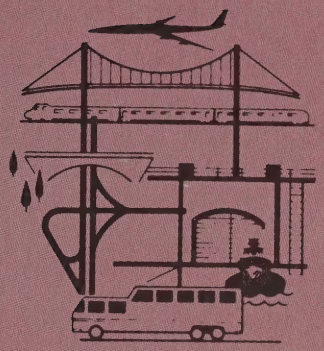
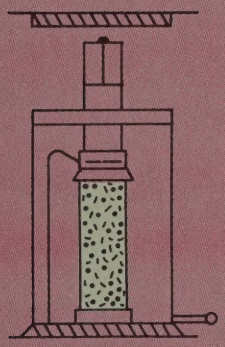
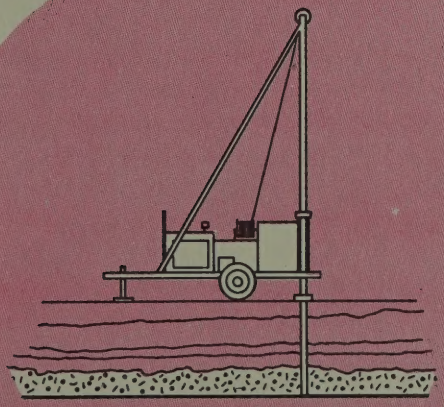
STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

SOIL MECHANICS BUREAU







TEST WELL REPORT

CONTRACT D96029
PIN 4218.12.112

REST AREA
I-390, SECTION 8
LIVINGSTON COUNTY

MAY 1979

SM 238b (1/73)

May 16, 1979

PIN 4218.12.112: REST AREA TEST WELLS
I-390 SECTION 8
LIVINGSTON COUNTY

R. J. Bazarnick, Assistant Engineering Geologist

E. M. Moody, Associate Soils Engineer

On March 1, 1979, the writer visited the subject project at the request of Region 4 Construction. The Contractor, Layne-New York, Inc., had readied themselves to begin the construction of Test Well No. 1. The Contractor at this time proposed to drill the 12-inch oversized hole through the overburden to a depth of approximately 25 feet. From this depth a 7-7/8 inch hole would be drilled to a point approximately 10 feet into sound rock. The 6-inch permanent well casing would then be lowered into the 7-7/8 inch socket that had been drilled into the rock and seated in the bottom of such socket. The grout would then be placed in the annular space between the 6-inch permanent well casing and the oversized hole. The Contractor felt that this method would insure a positive sanitary seal for the test wells. The writer and Mr. Mineo, Region 4 Project E.I.C., both agreed with this method and construction began on March 1, 1979.

During the construction of Well No. 1, when the Contractor was drilling at a depth of -37 feet in the overburden, gas was encountered. The pressure of the gas that was encountered was sufficient to blow the entire 37 foot column of bentonite mud out of the hole. The Contractor, Mr. Mineo and the writer agreed that the 12-inch oversized hole should be extended to a depth of 30 feet so that the additional grout might overcome the gas pressure in the overburden and effectively create a sanitary seal for the well.

Much heavier bentonite drilling mud was utilized during the redrilling and the well was constructed as proposed with the final depth of Well No. 1 being -118 feet from the original ground surface. The grout was successfully placed from -30 feet to the original ground surface and gas bubbles were not apparent in the grout at the ground surface. However, gas was bubbling within the water in the permanent casing.

Well No. 2 was begun on March 8, 1979, and was constructed similarly to Well No. 1. The 12-inch oversized hole was also drilled in the overburden to a depth of 30 feet from the original ground surface to insure that if any gas was present in the overburden, the additional weight of the cement grout would overcome the gas pressure. Well No. 2 was also completed to a final depth of -118 feet from ground surface with the grout to be utilized later to prevent gas from percolating up around the casing. The Contractor drilled the 12-inch oversized hole to -30 feet from the original ground surface and then drilled the 7-7/8 inch hole through the overburden and 10 feet into rock using much heavier bentonite drilling mud. Well No. 1 was completed at -118 feet from ground surface and grouted from -30 feet to the ground surface. The gas was shut off around the well casing but gas was observed bubbling from the water within the 6-inch permanent casing.

During the development of Wells No. 1 and 2, production was estimated at 15 g.p.m. for Well No. 1 and 12 g.p.m. for Well No. 2.

Wells No. 3 and 4 were constructed according to the method agreed to at the beginning of the subject project with the 12-inch overlaxed hole drilled to -25 feet from the original ground surface. Well No. 3 was completed to a depth of 119.5 feet from the original ground surface and Well No. 4 was completed to a depth of 118 feet below the original ground surface. The grout was placed from -25 feet to -5 feet below the original ground surface since no gas was encountered in the overburden at either of these sites. However, minor amounts of gas were observed bubbling within the 6-inch permanent well casings on both Wells No. 3 and 4.

At the finish of the individual pump tests, the water delivered the water samples to the New York State Department of Health Laboratories for quality analysis. The results of these tests indicate that there are excessively high amounts of iron, sulfur, chlorides and total dissolved solids and the total hardness is also excessively high on all wells.

The analyses of all four wells along with the drilling logs and the pump test data sheets are included with this report. The bacteriological test results for Well No. 2 were done by the Health Department and are therefore unavailable as part of this report.

It is the opinion of this writer that the amount of gas being produced in any of the test wells is not sufficient in quantity to be utilized in heating the proposed rest area. However, the quantity of gas present is great enough to possibly cause a hazardous situation within the building if the gas is not properly vented from the water system before it enters the rest area building.

If any recommendations or opinions on the treatment of the water from the test wells of the subject project or alternate means of procuring water for this proposed rest area are needed, this writer or another Engineering Geologist from this Bureau will be available for assistance.

MLK:ed

MEMORANDUM
DEPARTMENT OF TRANSPORTATION

May 17, 1979

PIN 4218.12
REST AREA TEST WELL REPORT
I-390, SECTION 8
LIVINGSTON COUNTY

L. R. Moore, Director, Soil Mechanics Bureau, Room 102, Bldg. 7
By: Edward M. Moody
A. M. Ditton, Landscaping Bureau, Room 407, Bldg. 5

ORIGINAL SIGNED BY
EDWARD M. MOODY

cc A. J. Kopczynski, Regional Director, Region 4
J. Sternbach, Construction Subdivision, Room 424, Bldg. 5

The following report describing the installation and testing of four test wells on the above project was prepared by R. J. Bazarnick, Assistant Engineering Geologist at this Bureau.

It is our opinion that the bacteriological tests for Well No. 3 which were lost by the Health Department would not be significantly different from the results obtained at the adjacent wells.

EMM/SAS
Attachment

NYSDOT
Library
50 Wolf Road, POD 34
Albany, New York 12232

ORIGINAL SIGNED BY
EDWARD M. MOODY

MEMORANDUM
DEPARTMENT OF TRANSPORTATION

DATE May 17, 1979

SUBJECT PIN 4218.12
REST AREA TEST WELL REPORT
I-390, SECTION 8
LIVINGSTON COUNTY

FROM L. H. Moore, Director, Soil Mechanics Bureau, Room 102, Bldg. 7
By: Edward M. Moody Edward M. Moody

TO A. M. Ditton, Landscaping Bureau, Room 407, Bldg. 5

cc A. J. Kopczynski, Regional Director, Region 4
J. Sternbach, Construction Subdivision, Room 424, Bldg. 5

The following report describing the installation and testing of four test wells on the above project was prepared by R. J. Bazarnick, Assistant Engineering Geologist at this Bureau.

It is our opinion that the bacteriological tests for Well No. 3 which were lost by the Health Department would not be significantly different from the results obtained at the adjacent wells.

EMM/SAS
Attachment

NYSDOT
Library
50 Wolf Road, POD 34
Albany, New York 12232

MEMORANDUM
DEPARTMENT OF TRANSPORTATION

DATE May 16, 1979

SUBJECT PIN 4218.12.112: REST AREA TEST WELLS
I-390 SECTION 8
LIVINGSTON COUNTY

FROM R. J. Bazarnick, Assistant Engineering Geologist

TO E. M. Moody, Associate Soils Engineer

On March 1, 1979, the writer visited the subject project at the request of Region 4 Construction. The Contractor, Layne-New York, Inc., had readied themselves to begin the construction of Test Well No. 1. The Contractor at this time proposed to drill the 12-inch oversized hole through the overburden to a depth of approximately 25 feet. From this depth a 7-7/8 inch hole would be drilled to a point approximately 10 feet into sound rock. The 6-inch permanent well casing would then be lowered into the 7-7/8 inch socket that had been drilled into the rock and seated in the bottom of such socket. The grout would then be placed in the annular space between the 6-inch permanent well casing and the oversized hole. The Contractor felt that this method would insure a positive sanitary seal for the test wells. The writer and Mr. Mineo, Region 4 Project E.I.C., both agreed with this method and construction began on March 1, 1979.

During the construction of Well No. 1, when the Contractor was drilling at a depth of -37 feet in the overburden, gas was encountered. The pressure of the gas that was encountered was sufficient to blow the entire 37 foot column of bentonite mud out of the hole. The Contractor, Mr. Mineo and the writer agreed that the 12-inch oversized hole should be extended to a depth of 30 feet so that the additional grout might overcome the gas pressure in the overburden and effectively create a sanitary seal for the well.

Much heavier bentonite drilling mud was utilized during the redrilling and the well was constructed as proposed with the final depth of Well No. 1 being -118 feet from the original ground surface. The grout was successfully placed from -30 feet to the original ground surface and gas bubbles were not apparent in the grout at the ground surface. However, gas was bubbling within the water in the permanent casing.

Well No. 2 was begun on March 8, 1979, and was constructed similarly to Well No. 1. The 12-inch oversized hole was also drilled in the overburden to a depth of 30 feet from the original ground surface to insure that if any gas was present in the overburden, the additional weight of the cement grout would overcome the gas pressure. Well No. 2 was also completed to a final depth of -118 feet from ground surface with the grout to be utilized later to prevent gas from percolating up around the casing. The Contractor drilled the 12-inch oversized hole to -30 feet from the original ground surface and then drilled the 7-7/8 inch hole through the overburden and 10 feet into rock using much heavier bentonite drilling mud. Well No. 1 was completed at -118 feet from ground surface and grouted from -30 feet to the ground surface. The gas was shut off around the well casing but gas was observed bubbling from the water within the 6-inch permanent casing.

During the development of Wells No. 1 and 2, production was estimated at 15 g.p.m. for Well No. 1 and 22 g.p.m. for Well No. 2.

Wells No. 3 and 4 were constructed according to the method agreed to at the beginning of the subject project with the 12-inch oversized hole drilled to -25 feet from the original ground surface. Well No. 3 was completed to a depth of 119.5 feet from the original ground surface and Well No. 4 was completed to a depth of 118 feet below the original ground surface. The grout was placed from -25 feet to -5 feet below the original ground surface since no gas was encountered in the overburden at either of these sites. However, minor amounts of gas were observed bubbling within the 6-inch permanent well casings on both Wells No. 3 and 4.

At the finish of the individual pump tests, the writer delivered the water samples to the New York State Department of Health Laboratories for quality analyzation. The results of these tests indicate that there are excessively high amounts of iron, sulfur, chlorides and total dissolved solids and the total hardness is also excessively high on all wells.

The analyses of all four wells along with the drilling logs and the pump test data sheets are included with this report. The bacteriological test results for Well No. 2 were lost by the Health Department and are therefore unavailable as part of this report.

It is the opinion of this writer that the amount of gas being produced in any of the test wells is not sufficient in quantity to be utilized in heating the proposed rest area. However, the quantity of gas present is great enough to possibly cause a hazardous situation within the building if the gas is not properly vented from the water system before it enters the rest area building.

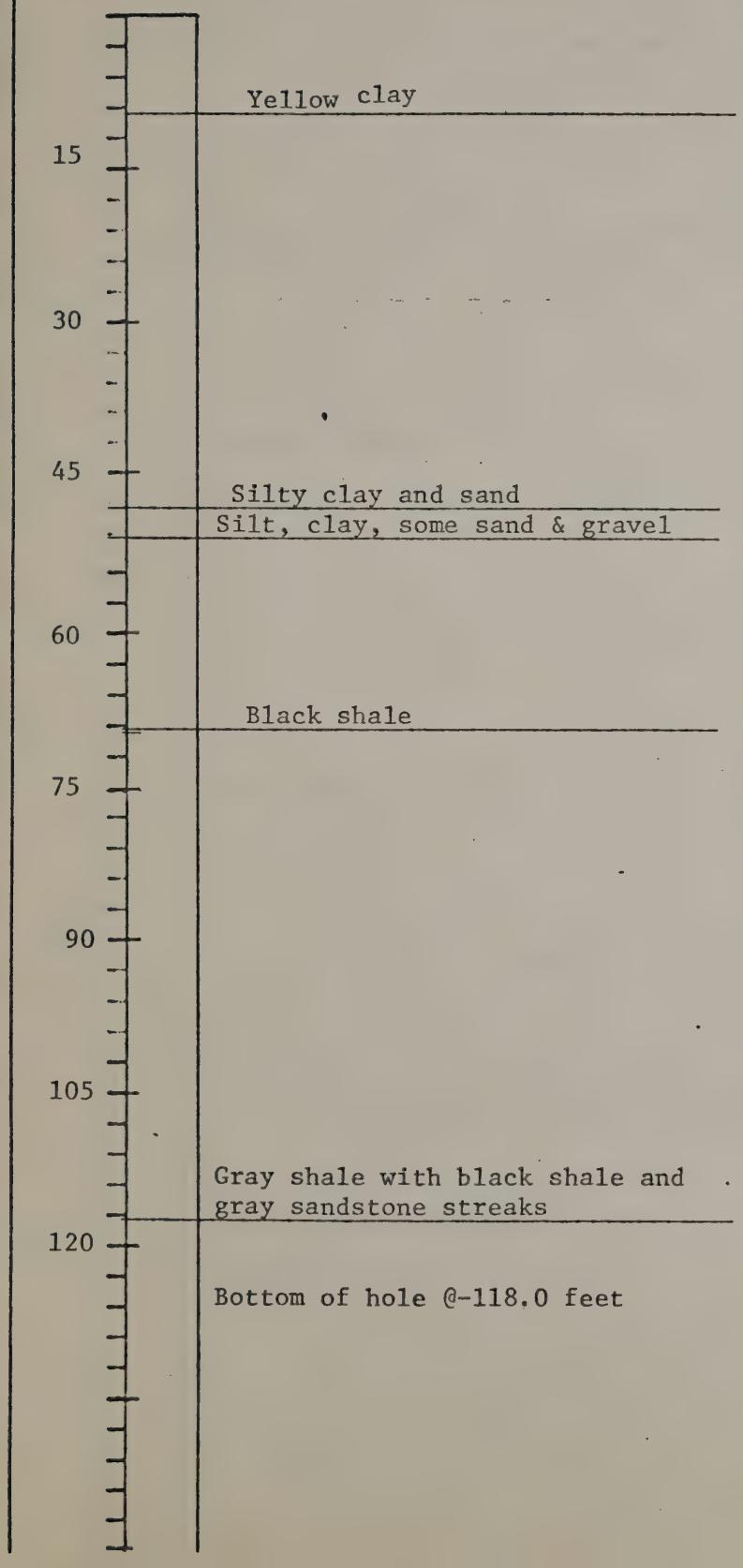
If any recommendations or opinions on the treatment of the water from the test wells of the subject project or alternate means of procuring water for this proposed rest area are needed, this writer or another Engineering Geologist from this Bureau will be available for assistance.

RJB:sd

State of New York
Dept. of Transportation
Soil Mechanics Bureau
TEST WELL LOG

Region No. 4
County Livingston
Proj. No. 4218.12.112
Requesting Dept. D.O.T.
Project Test Wells for I-390 Rest Areas - Section 8

Test Well No. 1
Gr. Elev. 569.91
Location LL1 + 1145
375 Rt.



Date Start 3/1/79
Date Finish 3/7/79
Contractor Layne New York, Inc.
Driller Jesse Arnett
EIC R. Mineo
Inspector R. Bazarnick
Rig Type Hydraulic Rotary

Well Data

Hole Diam. 6 inch
Final Depth 118 feet
Casing Diam. 6 inch
Casing Length 64.33 feet
Casing Above Ground 8.58 feet
Screen Type None
Screen Setting None
Gravel Pack None
Grout -25' to 0'

Development 12 hours using air from the rig

Test Data

Static Depth to Water +5.0 feet
Pump Setting -100.0 feet
Pumping Rate 7.5 to 9 G.P.M.
Date and Duration 3/14/79 - 12 hrs.
Specific Capacity

Recommendations

Pump Setting -100.0 feet
Pumping Rate 10 G.P.M.

Remarks

State of New York
Dept. of Transportation
Soil Mechanics Bureau
TEST WELL LOG

Region No. 4
County Livingston
Proj. No. 4218.12.112
Requesting Dept. D.O.T.
Project Test Wells I-390 Rest Areas - Section 8

Test Well No. 2
Gr. Elev. 571.08
Location LL1 + 1145
340 Rt.

Depth, ft.	Description
15	Clay
30	Silt and clay
45	Silt, clay, some sand & gravel
60	
75	Black shale
90	
105	Gray shale with black shale and gray sandstone streaks
120	Bottom of hole @ -118.0 feet

Date Start 3/8/79
Date Finish 3/14/79
Contractor Layne New York, Inc.
Driller Jesse Arnett
EIC R. Mineo
Inspector R. Bazarnick
Rig Type Hydraulic Rotary

Well Data

Hole Diam. 6 inch
Final Depth -118 feet
Casing Diam. 6 inch
Casing Length 65.75 feet
Casing Above Ground 7.92 feet
Screen Type None
Screen Setting None
Gravel Pack None
Grout -25' to 0'

Development 12 hours using air from rig

Test Data

Static Depth to Water +5.25 feet
Pump Setting -58 feet
Pumping Rate 18 to 12 g.p.m.
Date and Duration 3/21/79 - 12 hrs.
Specific Capacity

Recommendations

Pump Setting -100 feet
Pumping Rate 15 g.p.m.

Remarks

State of New York
Dept. of Transportation
Soil Mechanics Bureau
TEST WELL LOG

Region No. 4
County Livingston
Proj. No. 4218.12.112
Requesting Dept. D.O.T.
Project Test Wells I-390 Rest Areas - Section 8

Test Well No. 3
Gr. Elev. 587.75
Location LL1 + 995
266 Left

Depth, ft.	Description
15	Yellow clay
	Clay and gravel
30	
45	
	Clay with gravel streaks
60	Weathered black shale
75	
	Black shale
90	
105	
	Gray shale with black shale and gray sandstone streaks
120	
	Bottom of hole @ -119.5 feet

Date Start 3/21/79
Date Finish 3/26/79
Contractor Layne New York Inc.
Driller Jesse Arnett
EIC R. Mineo
Inspector R. Bazarnick
Rig Type Hydraulic Rotary

Well Data

Hole Diam. 6 inch
Final Depth 119.5 feet
Casing Diam. 6 inch
Casing Length 69.90 feet
Casing Above Ground 3.57 feet
Screen Type None
Screen Setting None
Gravel Pack None
Grout -25 feet to -5 feet

Development 12 hours using air from the rig

Test Data

Static Depth to Water -17.35 feet
Pump Setting -100.0 feet
Pumping Rate 20 to 10 g.p.m.
Date and Duration 3/28/79 - 12 hrs.
Specific Capacity

Recommendations

Pump Setting -100 feet
Pumping Rate 15 g.p.m.

Remarks

State of New York
Dept. of Transportation
Soil Mechanics Bureau
TEST WELL LOG

Region No. 4
County Livingston
Proj. No. 4218.12.112
Requesting Dept. D.O.T.
Project Test Wells I-390 Rest Areas - Section 8

Test Well No. 4
Gr. Elev. 587.92
Location LL1 + 945
271 left

Depth, ft.	Description
	Yellow clay
15	
30	Gray clay
	Sand, silt and clay
45	
60	Clay, silt and gravel
75	Black shale
90	
105	
	Gray shale with black shale and gray sandstone streaks
120	Bottom of hole @ -118.0 feet

Date Start 3/16/79
Date Finish 3/20/79
Contractor Layne New York, Inc.
Driller Jesse Arnett
EIC R. Mineo
Inspector R. Bazarnick
Rig Type Hydraulic Rotary

Well Data

Hole Diam. 6 inch
Final Depth 118 feet
Casing Diam. 6 inch
Casing Length 68.83 feet
Casing Above Ground 4.00 feet
Screen Type None
Screen Setting None
Gravel Pack None
Grout -25 feet to -5 feet

Development 12 hours using air from the rig.

Test Data

Static Depth to Water -16.55
Pump Setting -100.0 feet
Pumping Rate 20 to 10 g.p.m.
Date and Duration 3/27/79 - 12 hrs.
Specific Capacity

Recommendations

Pump Setting -100.0 feet
Pumping Rate 15 g.p.m.

Remarks

New York State Department of Transportation
Soil Mechanics Bureau

CONSTANT RATE PUMP TEST

Project: Test Wells I-390 Rest Areas - Section 8
Region 4 ; County Livingston ; PIN 4218.12.112
Date 3/14/79 ; Time Started 7 A.M. ; Pumping Rate 7.5-9.0 GPM
Pump Intake -100.0 below ground surface; Water temp. _____
Weather: Overcast

	Test Well	Observation Wells			Remarks
Hole No.	#1	--	NONE --		
Ground Elev.	569.91				
Static level below ground	+5.0				
Finished	-118.0'				
Time (min.)	Drawdown (from static level)				
1	-6.0				Pumping rate 8.0 GPM
2	-6.9				
3	-7.9				
4	-8.8				
5	-9.9				
6	-10.1				
7	-10.6				
8	-11.75				
9	-12.55				
10	-13.40				
20	-14.60				
30	-15.95				
40	-16.30				Pumping rate 7.5 GPM
50	-16.35				
60	-16.60				
80	-16.80				
100	-17.05				
130	-17.35				
160	-17.50				
190	-17.60				
220	-16.20				
250	-21.80				Pump increased to 9 GPM
300	-22.95				
360	-23.75				
420	-24.40				Generator down for gas & oil for 25 min.
510	-21.95				
540	-22.95				
600	-27.40				
660	-29.50				
690	-30.90				
720	-29.20				

New York State Department of Transportation
Soil Mechanics Bureau

CONSTANT RATE PUMP TEST

Project: Test Wells I-390 Rest Areas - Section 8
Region 4 ; County Livingston ; PIN 4218.12.112
Date 3/21/79 ; Time Started 7 AM ; Pumping Rate 18-12 GPM
Pump Intake -58' below ground surface; Water temp. _____
Weather: Partly Cloudy

	Test Well	Observation Wells			Remarks
Hole No.	#2				
Ground Elev.	571.08				
Static level below ground	+5.25				
Finished	-118.0'				
Time (min.)	Drawdown (from static level)				
1	-7.45				Pumping rate 18 GPM
2					
3	-11.15				
4					
5					
6					
7	-14.20				
8	-14.70				
9	-15.35				
10	-16.15				
15	-20.20				
20	-20.80				
25	-21.10				
30	-21.15				
35	-21.30				
40	-21.85				
50	-22.75				
60	-23.15				
70	-23.35				
80	-23.35				
90	-23.35				
100	-23.65				
120	-23.55				
150	-25.65				Pumping rate dropped to 12 GPM
180	-20.70				
210	-22.05				
240	-21.40				
300	-23.05				
360	-23.15				
420	-22.65				
480	-23.35				
540	-23.55				
600	-23.55				
660	-23.85				
720	-23.90				

New York State Department of Transportation
Soil Mechanics Bureau

CONSTANT RATE PUMP TEST

Project: Test Wells I-390 Rest Areas - Section 8
Region 4 ; **County** Livingston ; **PIN** 4218.12.112
Date 3/28/79 ; **Time Started** 7AM ; **Pumping Rate** 20-10 GPM
Pump Intake -100' below ground surface; **Water temp.** _____
Weather: Overcast

	Test Well	Observation Wells			Remarks
Hole No.	#3	-- NONE --			
Ground Elev.	587.75				
Static level below ground	-16.15				
Finished	-119.5				
Time (min.)	Drawdown (from static level)				
1	-4.40				Pumping rate 20 GPM
2	-4.60				
3	-5.05				
4	-5.25				
5	-5.40				
6	-5.50				
7	-5.75				
8	-6.10				
9	-6.40				
10	-6.55				
15	-7.05				
20	-6.75				
25	-6.85				Pumping rate dropped to 18 GPM
30	-6.45				
40	-6.65				Pumping rate dropped to 15 GPM
50	-6.50				
60	-6.70				Pumping rate dropped to 12 GPM
70	-5.85				
80	-5.85				
90	-5.95				
100	-6.20				Pumping rate increased to 14 GPM
120	-6.30				
150	-6.55				
180	-6.25				
210	-6.10				
240	-5.80				Pumping rate dropped to 10 GPM
270	-5.95				
300	-5.95				
360	-6.05				
420	-6.15				
480	-6.15				
540	-6.15				
600	-6.30				
660	-6.40				
720	-6.45				

New York State Department of Transportation
Soil Mechanics Bureau

CONSTANT RATE PUMP TEST

Project: Test Wells I-390 Rest Areas - Section 8
Region 4 ; County Livingston ; PIN 4218.12.112
Date 3/27/79 ; Time Started 7 AM ; Pumping Rate 20-10 GPM
Pump Intake -100' below ground surface; Water temp. _____
Weather: Clear

	Test Well	Observation Wells			Remarks
Hole No.	#4	--	NONE --		
Ground Elev.	587.92				
Static level below ground	-14.85'				
Finished	-118.0'				
Time (min.)	Drawdown (from static level)				
1	No measurement				
2	-6.05				Pumping Rate 20 GPM
3	-7.05				
4	-7.90				
5	-8.25				
6	-8.75				
7	-9.10				
8	-9.40				
9	-9.45				
10	-9.45				
15	-9.40				Pumping rate dropped to 15 GPM
20	-9.55				
25	-9.25				
30	-9.50				
40	-9.25				
50	-9.70				
60	-10.30				
70	-7.75				
80	-9.60				
90	-8.85				
100	-9.55				
120	-9.25				
150	-8.25				
180	-8.15				Pumping rate dropped to 10 GPM
210	-8.45				
240	-8.55				
300	-8.30				Generator shut down 4 min. for oil
360	-8.75				
420	-9.00				
480	-9.15				
540	-9.35				
600	-9.50				
660	-9.65				
720	-9.75				

0418

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 2)

LAB ACCESSION NO: 00305 YR/MO/DAY/HR SAMPLE REC'D: 79/03/30/11

REPORTING LAB: 10 EHC ALBANY
PROGRAM: 800 OGS WATER SUPPLY
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TOWN OF GENESEO LIVINGSTON COUNTY REST AREA I390 SECT 12
EXACT SAMPLING POINT: WELL NO. 1 SAMPLE NO. 1
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/14/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
000100	COLOR (APPARENT)			NA
000501	NITROGEN, AMMONIA	MG/L	3.6	
000709	NITROGEN, NITRITE	MCG/L	5.	LT
000801	NITROGEN,NITRATE&NITRITE	MG/L		SD
001001	CHLORIDE	MG/L	600.	
001101	HARDNESS, TOTAL AS CACO3	MG/L	768.	
001900	PH (LABORATORY)		7.0	
010001	IRON	MG/L	2.2	
010201	MANGANESE	MG/L	0.08	
010701	SODIUM	MG/L	330.	
100200	TURBIDITY,N.T.U.NEPHEL.		27.	
100300	ODOR, COLD		3.WOODY	
101501	ALKALINITY,ELECTROM.PH4.5	MG/L	582.	

DATE COMPLETED: 4/19/79

EHC ALBANY

SUBMITTED BY: HOFMANN

0419

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 2 OF 2)

LAB ACCESSION NO: 00305 YR/MO/DAY/HR SAMPLE REC'D: 79/03/30/11

REPORTING LAB: 10 EHC ALBANY
PROGRAM: 800 OGS WATER SUPPLY
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TOWN OF GENESEO LIVINGSTON COUNTY REST AREA I390 SECT 12
EXACT SAMPLING POINT: WELL NO. 1 SAMPLE NO. 1
TYPE OF SAMPLE: 02 PWS, CHLORIN,
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/14/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
106501	C.O.D.	MG/L		SD

DATE COMPLETED: 4/19/79

EHC ALBANY

SUBMITTED BY: HOFMANN

0424

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 2)

LAB ACCESSION NO: 00306 YR/MO/DAY/HR SAMPLE REC'D: 79/03/20/11

REPORTING LAB: 10 EHC ALBANY
PROGRAM: 800 OGS WATER SUPPLY
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TOWN OF GENESEO LIVINGSTON COUNTY REST AREA
I390 SECT 12
EXACT SAMPLING POINT: WELL NO. 1 SAMPLE NO.2
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/14/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

PARAMETER		UNIT	RESULT	NOTATION
000100	COLOR (APPARENT)			NA
000501	NITROGEN, AMMONIA	MG/L	3.6	
000709	NITROGEN, NITRITE	MCG/L	5.	LT
000801	NITROGEN,NITRATE&NITRITE	MG/L		SD
001001	CHLORIDE	MG/L	600.	
001101	HARDNESS, TOTAL AS CACO3	MG/L	750.	
001900	PH (LABORATORY)		7.1	
010001	IRON	MG/L	2.2	
010201	MANGANESE	MG/L	0.07	
010701	SODIUM	MG/L	340.	
100200	TURBIDITY,N.T.U.NEPHEL.		27.	
100300	ODOR, COLD		3.WOODY	
101501	ALKALINITY,ELECTROM.PH4.5	MG/L	599.	

DATE COMPLETED: 4/19/79

EHC ALBANY

SUBMITTED BY: HOFMANN

0425

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 2 OF 2)

LAB ACCESSION NO: 00306 YR/MO/DAY/HR SAMPLE REC'D: 79/03/20/11

REPORTING LAB: 10 EHC ALBANY
PROGRAM: 800 OGS WATER SUPPLY
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TOWN OF GENESEO LIVINGSTON COUNTY REST AREA
I390 SECT 12
EXACT SAMPLING POINT: WELL NO. 1 SAMPLE NO.2
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/14/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
106501	C.O.D.	MG/L		SD

DATE COMPLETED: 4/19/79

EHC ALBANY

SUBMITTED BY: HOFMANN

0478

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 00874 YR/MO/DAY/HR SAMPLE REC'D: 79/03/22/11

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN OF GENESEO LIV CO REST AREA 1390 SECT 12

EXACT SAMPLING POINT: WELL #2 SAMPLE #1
TYPE OF SAMPLE: 02 PWS, CHLORIN,
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/21/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
100200	TURBIDITY,N.T.U.NEPHEL.		9.0	
100300	ODOR, COLD		3.SULFUR	
001101	HARDNESS, TOTAL AS CACO3	MG/L	564.	
010001	IRON	MG/L	2.5	
001001	CHLORIDE	MG/L	460.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	.1	LT
202001	SOLIDS,DISS,TOT,180DEG C	MG/L	1352.	

DATE COMPLETED: 4/03/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFFMAN

0475

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 00873 YR/MO/DAY/HR SAMPLE REC'D: 79/03/22/11

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN OF GENESEO LIV CO REST AREA 1390 SECT 12

EXACT SAMPLING POINT: WELL #2 SAMPLE #2
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/21/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
100200	TURBIDITY,N.T.U.NEPHEL.		12.0	
100300	ODOR, COLD		3.SULFUR	
001101	HARDNESS, TOTAL AS CACO3	MG/L	540.	
010001	IRON	MG/L	2.5	
001001	CHLORIDE	MG/L	470.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	.1	LT
202001	SOLIDS,DISS,TOT.180DEG C	MG/L	1318.	

DATE COMPLETED: 4/03/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFFMAN

1690

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 01004 YR/MO/DAY/HR SAMPLE REC'D: 79/03/29/09

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN. GENESEO LIVINGSTON CO. REST AREA I 390 SECT. 12
EXACT SAMPLING POINT: WELL #3, SAMPLE #1
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/28/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
001900	PH (LABORATORY)		7.1	
101501	ALKALINITY,ELECTROM.PH4.5	MG/L	544.	
001101	HARDNESS, TOTAL AS CACO3	MG/L	444.	
001201	HARDNESS CA AS CACO3	MG/L	123.2	
010001	IRON	MG/L	2.3	
010201	MANGANESE	MG/L	0.08	
001001	CHLORIDE	MG/L	310.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	.1	LT
202001	SOLIDS,DISS,TOT.180DEG C	MG/L	1030.	

DATE COMPLETED: 4/18/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFMANN

1687

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 01003 YR/MO/DAY/HR SAMPLE REC'D: 79/03/29/09

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN. GENESEO LIVINGSTON CO. REST AREA I 390 SECT. 12
EXACT SAMPLING POINT: WELL #3, SAMPLE #2
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/28/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
001900	PH (LABORATORY)		7.0	
101501	ALKALINITY,ELECTROM.PH4.5	MG/L	529.	
001101	HARDNESS, TOTAL AS CACO3	MG/L	432.	
001201	HARDNESS CA AS CACO3	MG/L	120.	
010001	IRON	MG/L	2.2	
010201	MANGANESE	MG/L	0.07	
001001	CHLORIDE	MG/L	320.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	.1	LT
202001	SOLIDS,DISS,TOT.180DEG C	MG/L	1017.	

DATE COMPLETED: 4/18/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFMANN

0660

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 06295 YR/MO/DAY/HR SAMPLE REC'D: 79/03/29/10

REPORTING LAB: 30 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN OF GENESEO LIV CO REST AREA 1390 SECT 12

EXACT SAMPLING POINT: WELL NO 3 SAMPLE NO 1
TYPE OF SAMPLE: S2 SURV., PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/28/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
026800	STD.PLATE COUNT 48 HR /ML		9.	
027000	COLIF. MF COL/100ML		1.	LT

DATE COMPLETED: 4/02/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFFMN

0657

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 06294 YR/MO/DAY/HR SAMPLE REC'D: 79/03/29/10

REPORTING LAB: 30 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN OF GENESEO LIV CO REST AREA 1390 SECT12

EXACT SAMPLING POINT: WELL NO 3 SAMPLE NO 2
TYPE OF SAMPLE: S2 SURV., PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/28/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
026800	STD.PLATE COUNT 48 HR /ML		2.	
027000	COLIF. MF COL/100ML		1.	LT

DATE COMPLETED: 4/02/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFFMN

1681

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 00955 YR/MO/DAY/HR SAMPLE REC'D: 79/03/28/13

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN. GENESEO LIVINGSTON CO. REST AREA I 390 SECT. 12
EXACT SAMPLING POINT: WELL #4 SAMPLE #1
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/27/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

PARAMETER		UNIT	RESULT	NOTATION
001900	PH (LABORATORY)		7.6	
101501	ALKALINITY,ELECTROM.PH4.5	MG/L	539.	
001101	HARDNESS, TOTAL AS CACO3	MG/L	468.0	
001201	HARDNESS CA AS CACO3	MG/L	126.4	
010001	IRON	MG/L	2.5	
010201	MANGANESE	MG/L	0.09	
001001	CHLORIDE	MG/L	350.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	.1	LT
202001	SOLIDS,DISS,TOT.180DEG C	MG/L	1090.	

DATE COMPLETED: 4/18/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFMANN

1684

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 00956 YR/MO/DAY/HR SAMPLE REC'D: 79/03/28/13

REPORTING LAB: 33 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN. GENESEO LIVINGSTON CO. REST AREA I 390 SECT. 12
EXACT SAMPLING POINT: WELL #4, SAMPLE #2
TYPE OF SAMPLE: 02 PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/27/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
001900	PH (LABORATORY)		7.3	
101501	ALKALINITY,ELECTROM.PH4.5	MG/L		SD
001101	HARDNESS, TOTAL AS CACO3	MG/L	436.	
001201	HARDNESS CA AS CACO3	MG/L	126.4	
010001	IRON	MG/L	2.6	
010201	MANGANESE	MG/L	0.08	
001001	CHLORIDE	MG/L	360.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	.1	LT
202001	SOLIDS,DISS,TOT.180DEG C	MG/L	1071.	

DATE COMPLETED: 4/18/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFMANN

0347

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 06210 YR/MO/DAY/HR SAMPLE REC'D: 79/03/28/13

REPORTING LAB: 30 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN. GENESEO LIVINGSTON CO. REST AREA I390 SECT. 12
EXACT SAMPLING POINT: WELL #4, SAMPLE #1
TYPE OF SAMPLE: S2 SURV.., PWS. CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/27/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

PARAMETER		UNIT	RESULT	NOTATION
026800	STD.PLATE COUNT 48 HR /ML		5.	
027000	COLIF. MF COL/100ML		1.	LT

DATE COMPLETED: 3/30/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFMANN

0357

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 1 OF 1)

LAB ACCESSION NO: 06213 YR/MO/DAY/HR SAMPLE REC'D: 79/03/28/13

REPORTING LAB: 30 SYRACUSE LAB
PROGRAM: 820 NYS DEPT. OF TRANSP.
STATION (SOURCE) NO:
DRAINAGE BASIN: 04 NY GAZETTEER NO: 2553 COUNTY: LIVINGSTON
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: TN. GENESEO LIVINGSTON CO. REST AREA I 390 SECT. 12
EXACT SAMPLING POINT: WELL #4, SAMPLE #2
TYPE OF SAMPLE: S2 SURV., PWS, CHLORIN.
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 03/27/19
REPORT SENT TO: CO (1) RO (0) LPHE (1) LHO (0) FED (0) CHEM (0)

	PARAMETER	UNIT	RESULT	NOTATION
026800	STD.PLATE COUNT 48 HR /ML		8.	
027000	COLIF. MF COL/100ML		1.	LT

DATE COMPLETED: 3/30/79

DEPUTY CHIEF ENGINEER,TECHNICAL SERVICES
NYS DEPT.OF TRANSPORTATION, BLDG. 7A
1220 WASHINGTON AVENUE
ALBANY, N.Y. 12226

SUBMITTED BY: HOFMANN

00975
LRI